

# 1/2/3 KV AD 3-6-10

## DOMESTIC CONSTANT PRESSURE BOOSTER SETS WITH ACTIVE DRIVER



### TECHNICAL DATA

- Operating range:** from 1,8 to 43 m³/h
- Pumped liquid:** clean, free of solids and abrasives, non viscous, non aggressive, non crystallised and chemically neutral, with properties similar to water.
- Pumped liquid temperature range:** from 0 °C to +40°C
- Maximum ambient temperature:** +40°C
- Maximum operating pressure:** PN16
- Special executions on request:** contact our sales network
- Protection class:** IP44

### APPLICATIONS

Pressure booster sets particularly suited for domestic use, small civil or industrial systems, irrigation systems, and washing systems. Their main features are reliability, simple operation, and minimum maintenance requirements.

### CONSTRUCTION FEATURES - COMPONENTS

#### HYDRAULIC SECTION

- KV multistage centrifugal electric pumps.
- Galvanized sheet steel base complete with 4 rubber anti-vibration feet.
- Suction and delivery manifolds in galvanized steel.
- Ball valves with unions on the suction and delivery ports of each pump.
- Check valves on the suction port of each pump.
- 2 galvanized steel plugs for closing the manifolds.
- Radial manometer with isolator valve.
- 1 18 litre membrane pressure tank (it optimises the number of pump starts).

#### ELECTRICAL SECTION

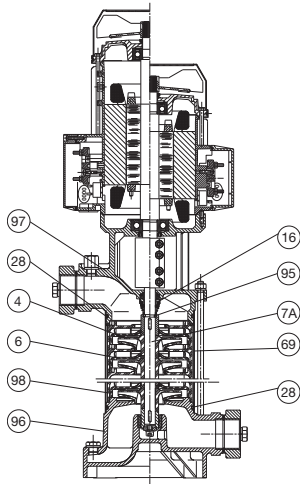
- 1 Active Driver module on the delivery line of each pump (see Active Driver information at the beginning of this section).
- 1 protection control unit.

### MULTI INVERTER SYSTEM WITH ACTIVE DRIVER

The inverter provides constant control of the rotation speed of the electric pump, ensuring constant pressure despite flow rate variations. The other electric pumps, also with variable speed, are activated in cascade after the first one has reached maximum speed. Through modulation, they compensate the pressure fluctuations of the system. For every operating cycle, it is possible to switch the restart to a different pump, therefore ensuring even use of all electric pumps. It is possible to set operation times for each individual pump, switching to another pump after such set times. The "SP" pressure can be adjusted by the user using two "+" and "-" keys on the A.D. (as a rule, all the pumps are set to the same pressure value).

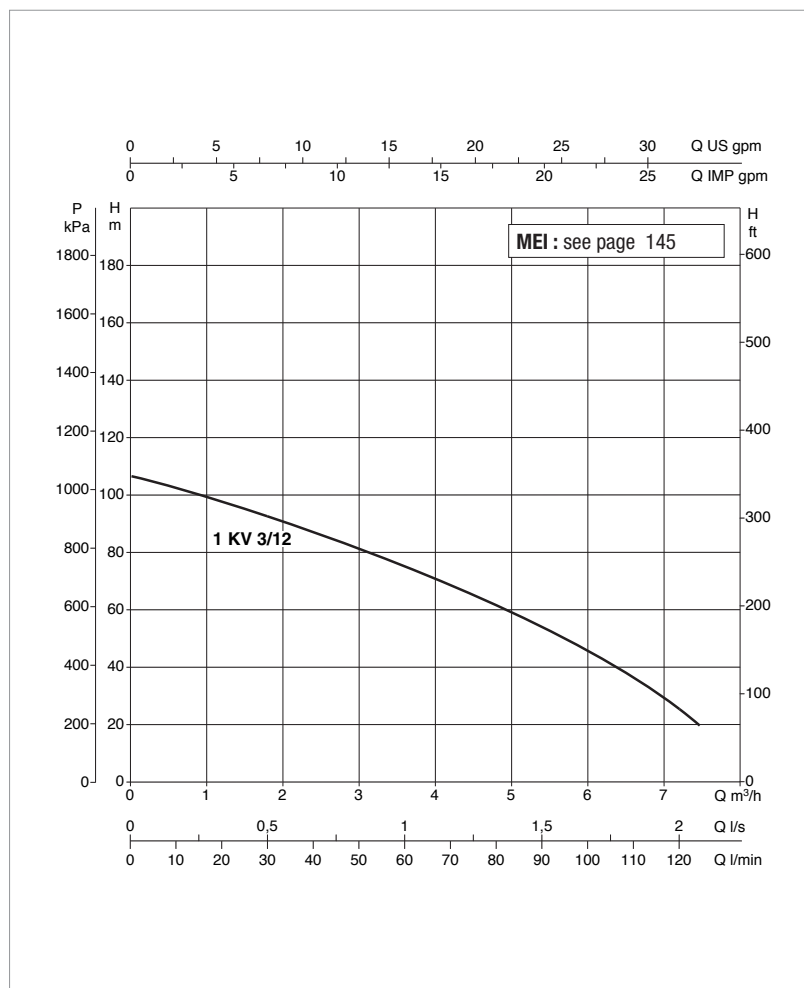
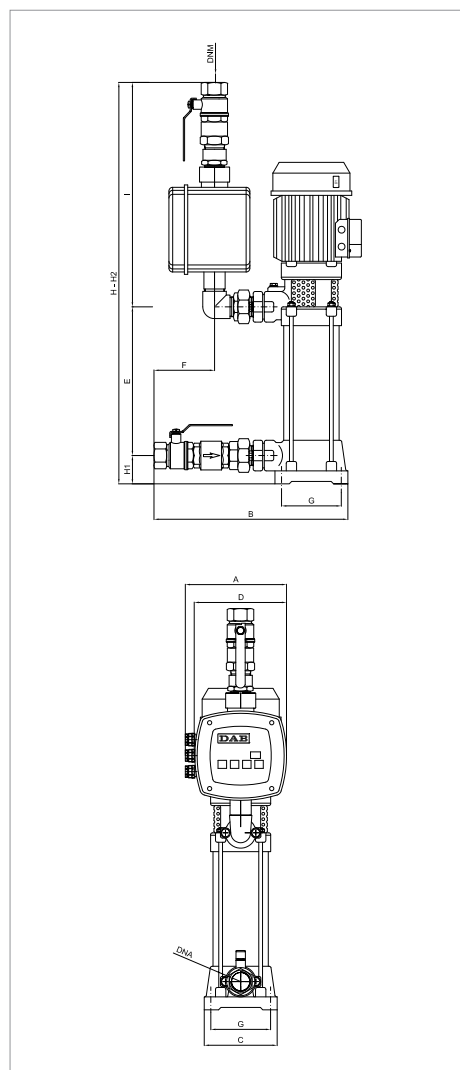
### MATERIALS

| N. | PARTS           | MATERIALS                                            |
|----|-----------------|------------------------------------------------------|
| 4  | IMPELLER        | TECHNOPOLYMER B                                      |
| 6  | DIFFUSER        | TECHNOPOLYMER B                                      |
| 7A | PUMP SHAFT      | AISI 416 STAINLESS STEEL<br>X12 CrS 13 UNI 6900/71   |
| 16 | MECHANICAL SEAL | CARBON / CERAMIC                                     |
| 28 | OR RING         | EPDM RUBBER                                          |
| 69 | LINER           | AISI 304 STAINLESS STEEL<br>X5 CrNi 1810 UNI 6900/71 |
| 95 | OR RING         | EPDM RUBBER                                          |
| 96 | SUCTION BODY    | CAST IRON 200 UNI ISO 185                            |
| 97 | DELIVERY BODY   | CAST IRON 200 UNI ISO 185                            |
| 98 | DIFFUSER BODY   | TECHNOPOLYMER B                                      |



## 1 KV AD 3 - DOMESTIC PRESSURE BOOSTER SETS

Pumped liquid temperature range: from 0 °C to +40 °C - Maximum ambient temperature: +40 °C - Max flow rate: 7.2 m³/h



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³.  
Curve tolerance according to ISO 9906.

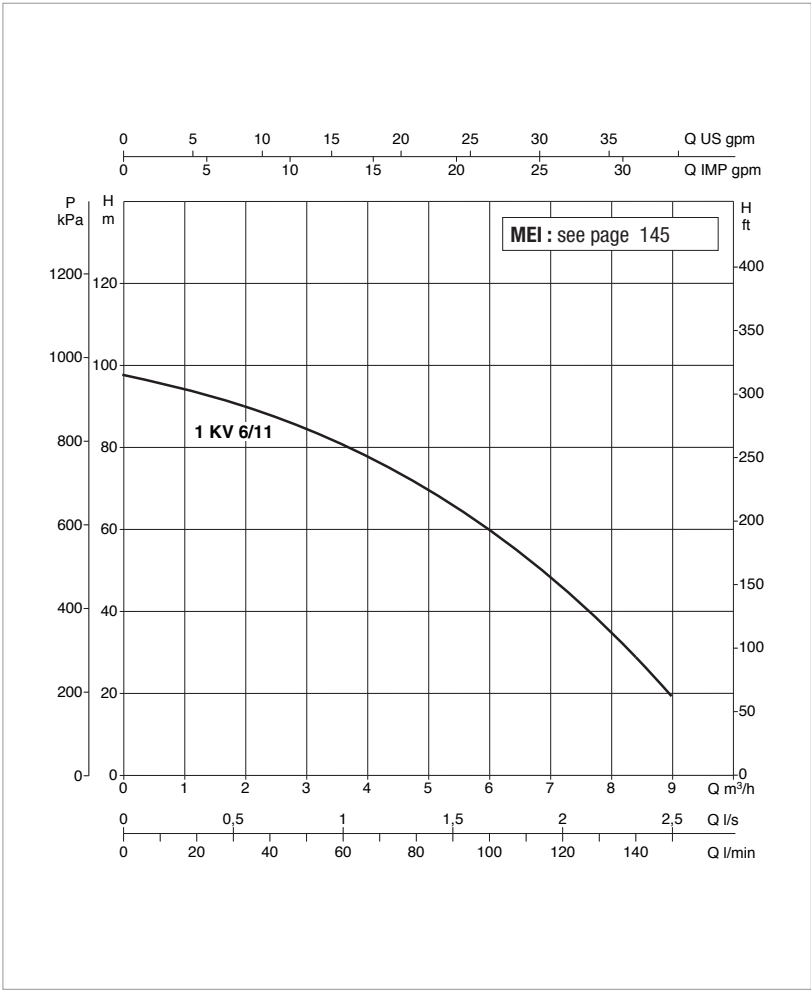
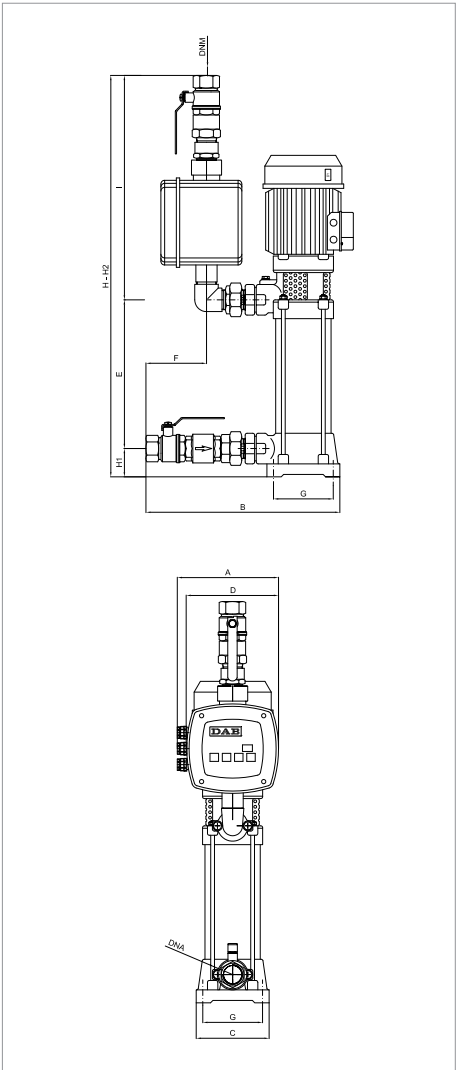
| MODEL            | POWER INPUT<br>50 Hz | P2 NOMINAL |    | In<br>A | INVERTER<br>MODEL | MAX FLOW RATE<br>m³/h | MAX<br>OBTAINABLE<br>PRESSURE | STANDARD<br>PRESSURE |
|------------------|----------------------|------------|----|---------|-------------------|-----------------------|-------------------------------|----------------------|
|                  |                      | kW         | HP |         |                   |                       |                               |                      |
| 1 KV A.D. 3/12 M | 1x230                | 1,5        | 2  | 8,5     | A.D. M/T 2,2      | 7,2                   | 10,5                          | 6,5                  |

| MODEL            | A   | B   | C   | D   | E   | F   | G   | H    | H1 | H2   | I   | DNA | DNM | PACKING DIMENSIONS |     |     | VOLUME<br>m³ | WEIGHT<br>kg |
|------------------|-----|-----|-----|-----|-----|-----|-----|------|----|------|-----|-----|-----|--------------------|-----|-----|--------------|--------------|
|                  |     |     |     |     |     |     |     |      |    |      |     |     |     | L/A                | L/B | H   |              |              |
| 1 KV A.D. 3/12 M | 215 | 412 | 155 | 195 | 476 | 130 | 127 | 1016 | 60 | 1016 | 480 | 1"¼ | 1"¼ | 850                | 610 | 895 | 0,5          | 38           |

The sets are supplied in a sturdy cardboard packaging on wooden pallet and installation / maintenance manual.

1 KV AD 6 - DOMESTIC PRESSURE BOOSTER SETS

Pumped liquid temperature range: from 0 °C to +40 °C - Maximum ambient temperature: +40 °C - Max flow rate: 8.4 m³/h



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³.  
Curve tolerance according to ISO 9906.

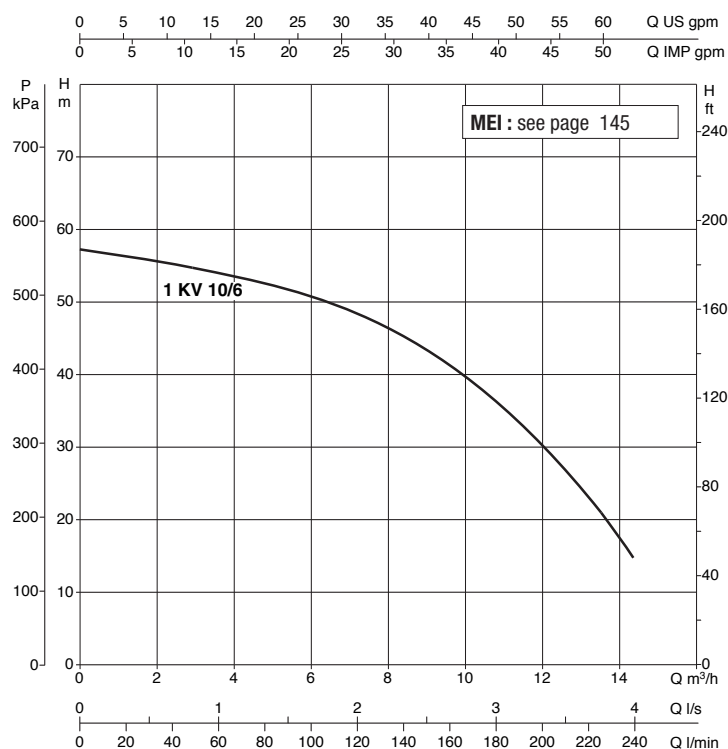
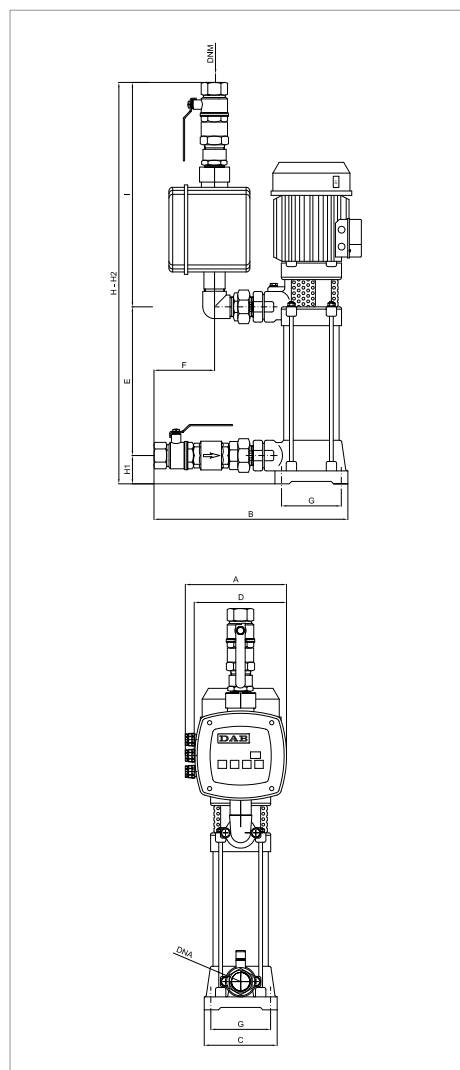
| MODEL            | POWER INPUT<br>50 Hz | P2 NOMINAL |     | In<br>A | INVERTER<br>MODEL | MAX FLOW RATE<br>m³/h | MAX<br>OBTAINABLE<br>PRESSURE | STANDARD<br>PRESSURE |
|------------------|----------------------|------------|-----|---------|-------------------|-----------------------|-------------------------------|----------------------|
|                  |                      | kW         | HP  |         |                   |                       |                               |                      |
| 1 KV A.D. 6/11 M | 1x230                | 1,85       | 2,5 | 9,5     | A.D. M/T 2,2      | 8,4                   | 9,8                           | 5,5                  |

| MODEL            | A   | B   | C   | D   | E   | F   | G   | H   | H1 | H2  | I   | DNA | DNM | PACKING DIMENSIONS |     |     | VOLUME<br>m³ | WEIGHT<br>kg |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|--------------------|-----|-----|--------------|--------------|
|                  |     |     |     |     |     |     |     |     |    |     |     |     |     | L/A                | L/B | H   |              |              |
| 1 KV A.D. 6/11 M | 215 | 412 | 155 | 195 | 444 | 130 | 127 | 984 | 60 | 984 | 480 | 1"¼ | 1"¼ | 850                | 610 | 895 | 0,5          | 41           |

The sets are supplied in a sturdy cardboard packaging on wooden pallet and installation / maintenance manual.

## 1 KV AD 10 - DOMESTIC PRESSURE BOOSTER SETS

Pumped liquid temperature range: from 0 °C to +40 °C - Maximum ambient temperature: +40 °C - Max flow rate: 13.8 m³/h



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³.  
Curve tolerance according to ISO 9906.

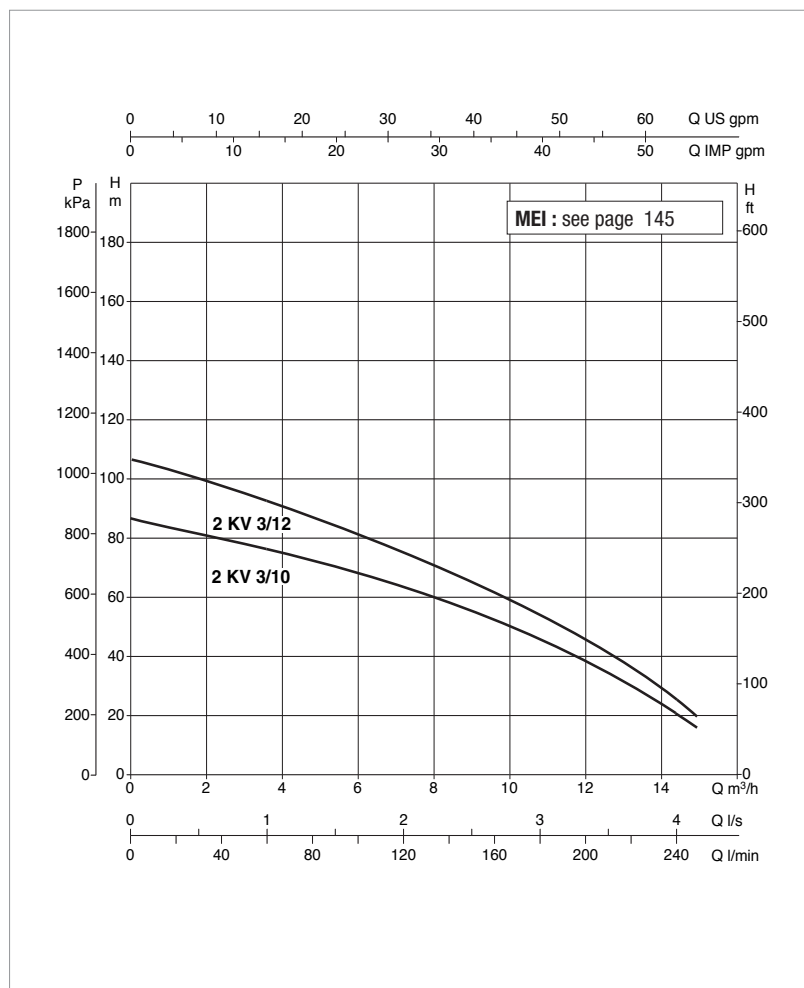
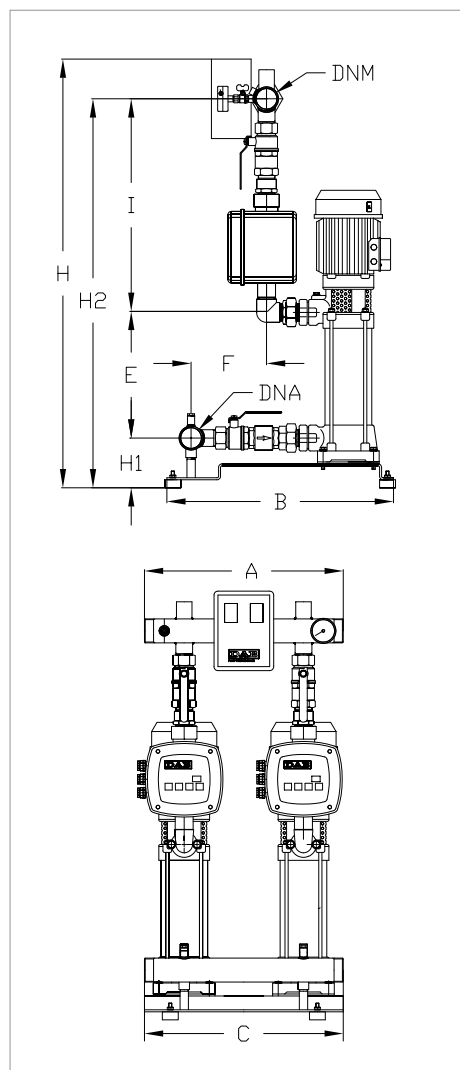
| MODEL            | POWER INPUT<br>50 Hz | P2 NOMINAL |     | In<br>A | INVERTER<br>MODEL | MAX FLOW RATE<br>m³/h | MAX<br>OBTAINABLE<br>PRESSURE | STANDARD<br>PRESSURE |
|------------------|----------------------|------------|-----|---------|-------------------|-----------------------|-------------------------------|----------------------|
|                  |                      | kW         | HP  |         |                   |                       |                               |                      |
| 1 KV A.D. 10/6 M | 1x230                | 1,85       | 2,5 | 9,5     | A.D. M/T 2,2      | 13,8                  | 5,7                           | 4,5                  |

| MODEL            | A   | B   | C   | D   | E   | F   | G   | H   | H1 | H2  | I   | DNA | DNM | PACKING DIMENSIONS |     |     | VOLUME<br>m³ | WEIGHT<br>kg |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|--------------------|-----|-----|--------------|--------------|
|                  |     |     |     |     |     |     |     |     |    |     |     |     |     | L/A                | L/B | H   |              |              |
| 1 KV A.D. 10/6 M | 215 | 412 | 155 | 195 | 284 | 130 | 127 | 984 | 60 | 824 | 480 | 1"¼ | 1"¼ | 850                | 610 | 895 | 0,5          | 41           |

The sets are supplied in a sturdy cardboard packaging on wooden pallet and installation / maintenance manual.

## 2 KV AD 3 - DOMESTIC PRESSURE BOOSTER SETS

Pumped liquid temperature range: from 0 °C to +40 °C - Maximum ambient temperature: +40 °C - Max flow rate: 14.4 m³/h



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³.  
Curve tolerance according to ISO 9906. **Overall performance taking into account TWO pumps working at the same time.**  
The performance results of sets with smaller pumps are obtained through simple calibration of the Active Driver module.

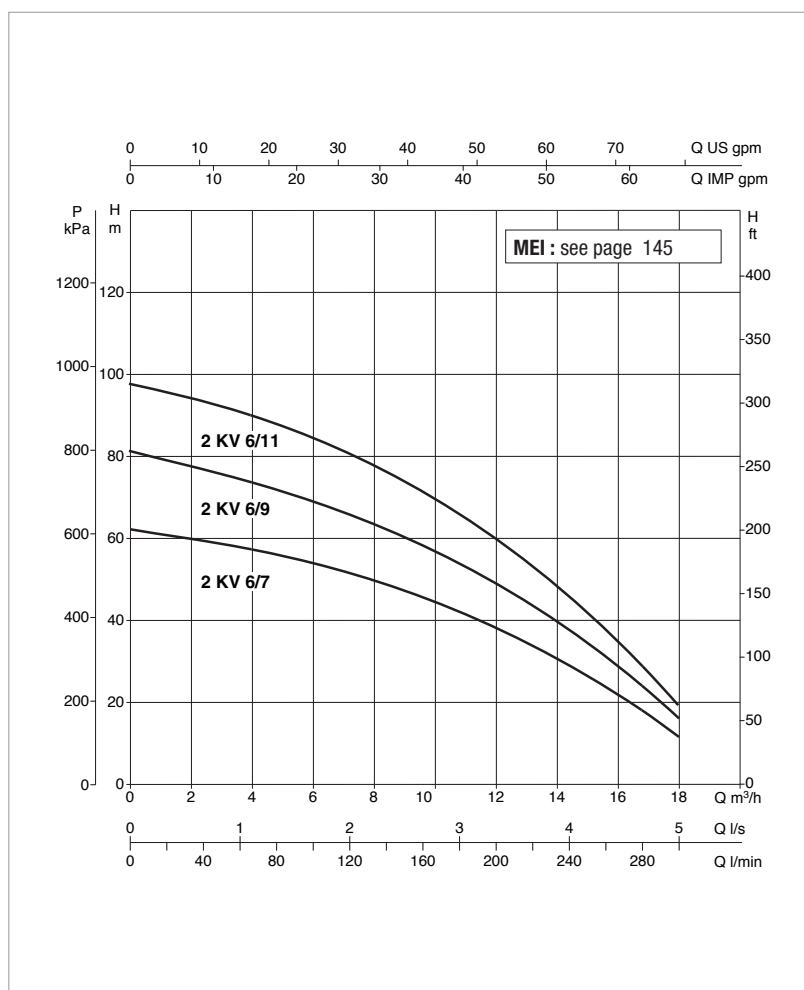
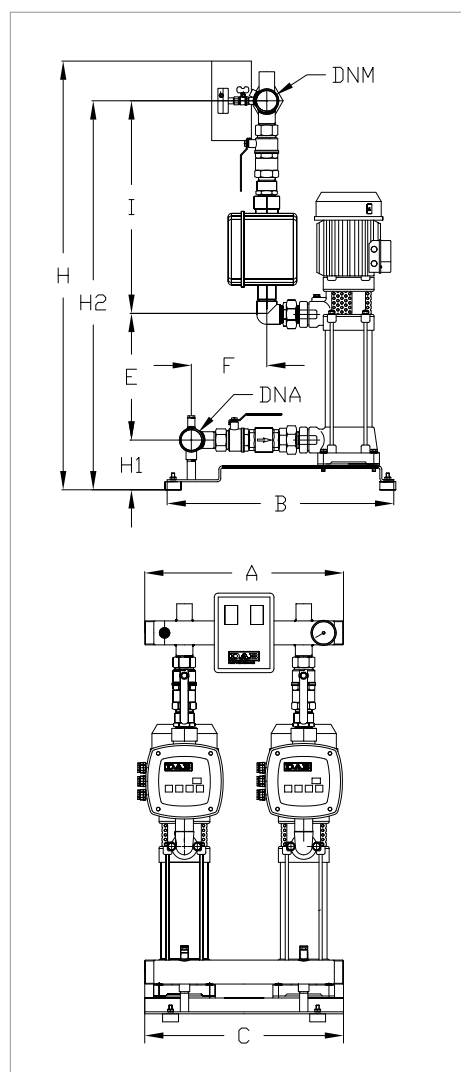
| MODEL                | POWER INPUT<br>50 Hz | P2 NOMINAL |       | In<br>A | INVERTER<br>MODEL | MAX FLOW RATE<br>m³/h | MAX<br>OBTAINABLE<br>PRESSURE | STANDARD<br>PRESSURE |
|----------------------|----------------------|------------|-------|---------|-------------------|-----------------------|-------------------------------|----------------------|
|                      |                      | kW         | HP    |         |                   |                       |                               |                      |
| 2 KV A.D. 3/10 T / N | 3x400+N              | 2x1,1      | 2x1,5 | 2x7,3   | A.D. M/T 2,2      | 14,4                  | 8,8                           | 6,5                  |
| 2 KV A.D. 3/12 T / N | 3x400+N              | 2x1,5      | 2x2   | 2x8,3   | A.D. M/T 2,2      | 14,4                  | 10,5                          | 8,5                  |

| MODEL                | A   | B   | C   | E   | F   | H    | H1  | H2   | I   | DNA | DNM | PACKING DIMENSIONS |     |      | VOLUME<br>m³ | WEIGHT<br>kg |
|----------------------|-----|-----|-----|-----|-----|------|-----|------|-----|-----|-----|--------------------|-----|------|--------------|--------------|
|                      |     |     |     |     |     |      |     |      |     |     |     | L/A                | L/B | H    |              |              |
| 2 KV A.D. 3/10 T / N | 500 | 570 | 500 | 412 | 190 | 967  | 125 | 947  | 535 | 2"  | 2"  | 1000               | 610 | 1280 | 0,8          | 78           |
| 2 KV A.D. 3/12 T / N | 500 | 570 | 500 | 476 | 190 | 1031 | 125 | 1011 | 535 | 2"  | 2"  | 1000               | 610 | 1280 | 0,8          | 86,5         |

The sets are supplied in a sturdy cardboard packaging on wooden pallet and installation / maintenance manual.

## 2 KV AD 6 - DOMESTIC PRESSURE BOOSTER SETS

Pumped liquid temperature range: from 0 °C to +40 °C - Maximum ambient temperature: +40 °C - Max flow rate: 17 m³/h



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906. **Overall performance taking into account TWO pumps working at the same time.** The performance results of sets with smaller pumps are obtained through simple calibration of the Active Driver module.

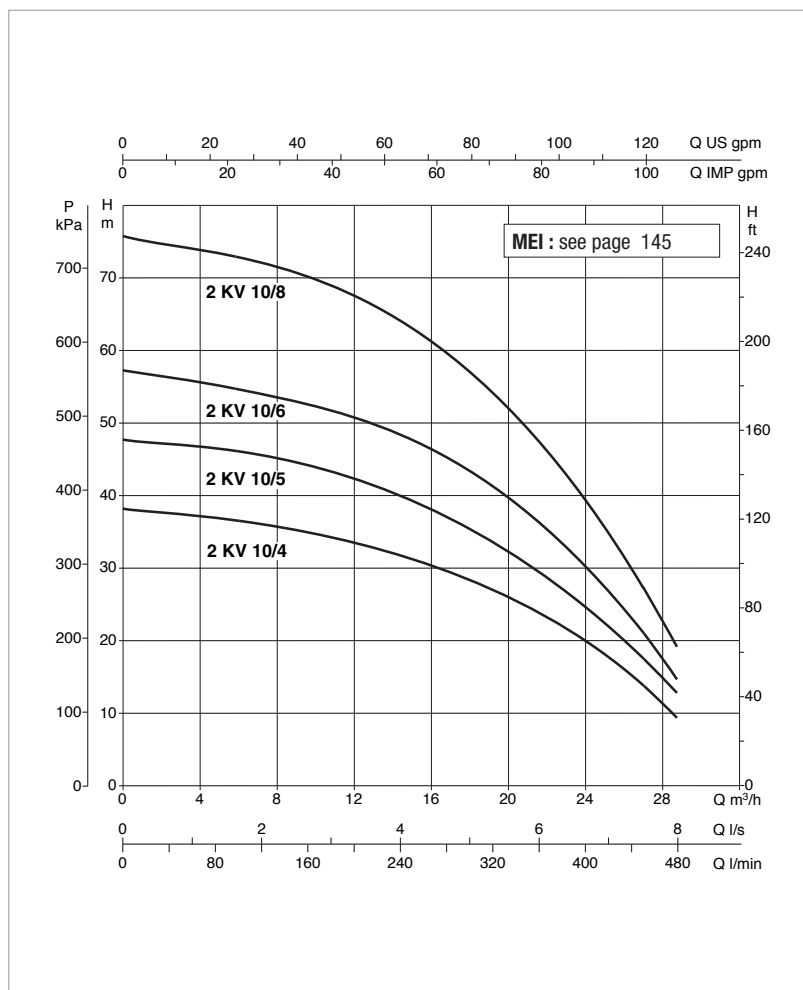
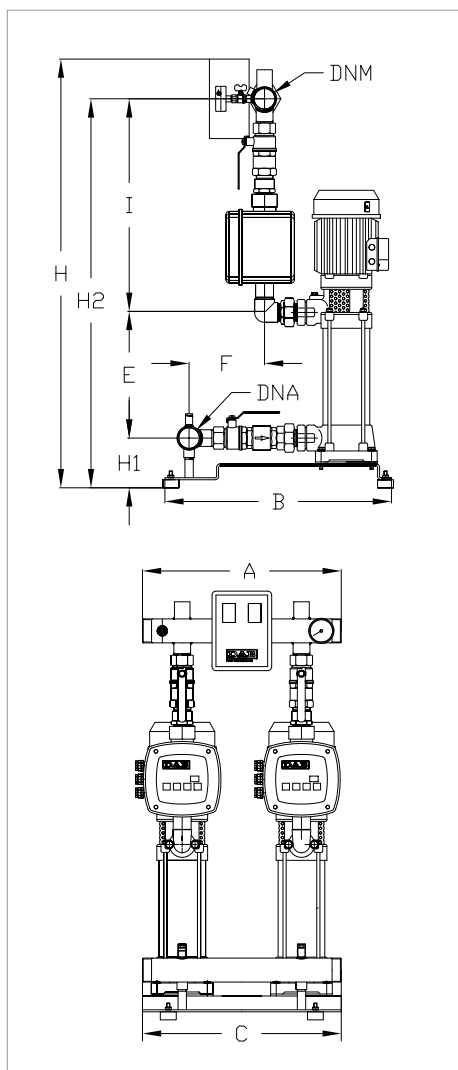
| MODEL                | POWER INPUT<br>50 Hz | P2 NOMINAL |       | In<br>A | INVERTER<br>MODEL | MAX FLOW RATE<br>m³/h | MAX<br>OBTAINABLE<br>PRESSURE | STANDARD<br>PRESSURE |
|----------------------|----------------------|------------|-------|---------|-------------------|-----------------------|-------------------------------|----------------------|
|                      |                      | kW         | HP    |         |                   |                       |                               |                      |
| 2 KV A.D. 6/7 T / N  | 3x400+N              | 2x1,1      | 2x1,5 | 2x7,3   | A.D. M/T 2,2      | 17                    | 6,2                           | 4                    |
| 2 KV A.D. 6/9 T / N  | 3x400+N              | 2x1,5      | 2x2   | 2x8,3   | A.D. M/T 2,2      | 17                    | 8                             | 6                    |
| 2 KV A.D. 6/11 T / N | 3x400+N              | 2x1,85     | 2x2,5 | 2x9,5   | A.D. M/T 2,2      | 17                    | 9,8                           | 7                    |

| MODEL                | A   | B   | C   | E   | F   | H   | H1  | H2  | I   | DNA | DNM | PACKING DIMENSIONS |     |      | VOLUME<br>m³ | WEIGHT<br>kg |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------------|-----|------|--------------|--------------|
|                      |     |     |     |     |     |     |     |     |     |     |     | L/A                | L/B | H    |              |              |
| 2 KV A.D. 6/7 T / N  | 500 | 570 | 500 | 316 | 190 | 871 | 125 | 851 | 535 | 2"  | 2"  | 1000               | 610 | 1280 | 0,8          | 86,5         |
| 2 KV A.D. 6/9 T / N  | 500 | 570 | 500 | 380 | 190 | 935 | 125 | 915 | 535 | 2"  | 2"  | 1000               | 610 | 1280 | 0,8          | 87           |
| 2 KV A.D. 6/11 T / N | 500 | 570 | 500 | 444 | 190 | 999 | 125 | 979 | 535 | 2"  | 2"  | 1000               | 610 | 1280 | 0,8          | 86,5         |

The sets are supplied in a sturdy cardboard packaging on wooden pallet and installation / maintenance manual.

## 2 KV AD 10 - DOMESTIC PRESSURE BOOSTER SETS

Pumped liquid temperature range: from 0 °C to +40 °C - Maximum ambient temperature: +40 °C - Max flow rate: 27 m³/h



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³.  
Curve tolerance according to ISO 9906. **Overall performance taking into account TWO pumps working at the same time.**  
The performance results of sets with smaller pumps are obtained through simple calibration of the Active Driver module.

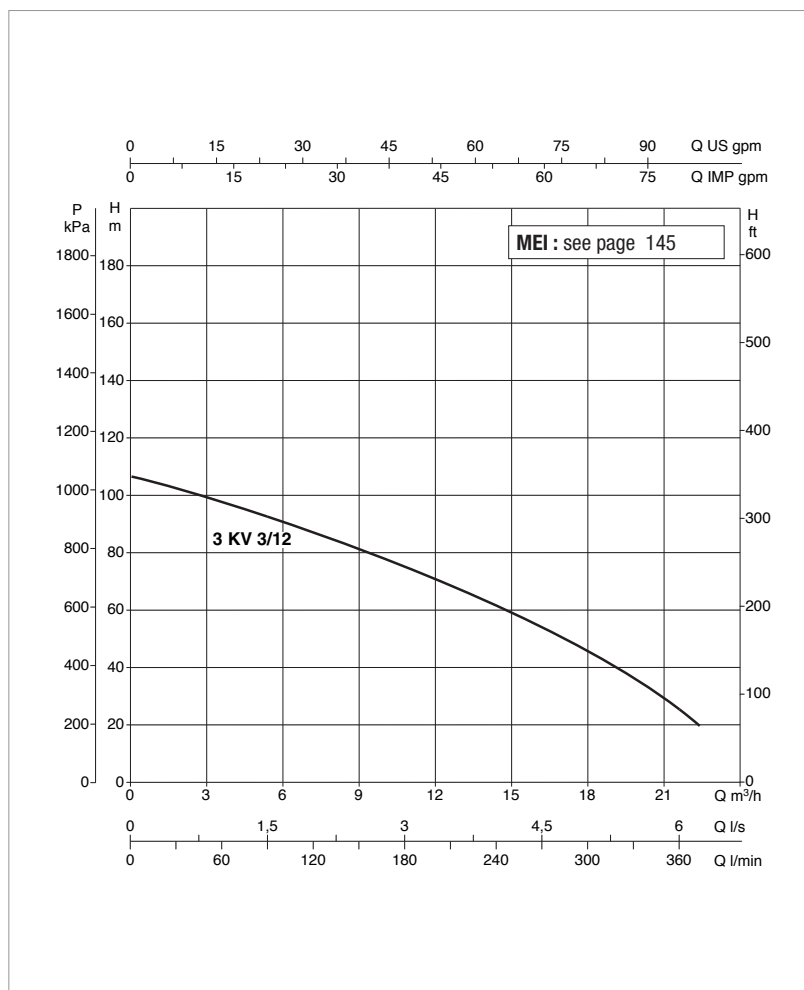
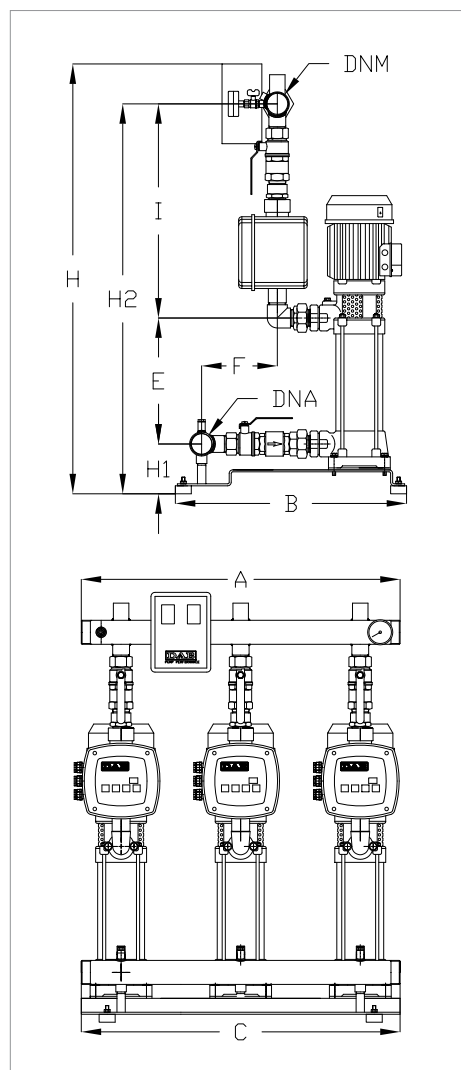
| MODEL                | POWER INPUT<br>50 Hz | P2 NOMINAL |       | In<br>A | INVERTER<br>MODEL | MAX FLOW RATE<br>m³/h | MAX<br>OBTAINABLE<br>PRESSURE | STANDARD<br>PRESSURE |
|----------------------|----------------------|------------|-------|---------|-------------------|-----------------------|-------------------------------|----------------------|
|                      |                      | KW         | HP    |         |                   |                       |                               |                      |
| 2 KV A.D. 10/4 T / N | 3x400+N              | 2x1,1      | 2x1,5 | 2x7,3   | A.D. M/T 2,2      | 27                    | 3,8                           | 3                    |
| 2 KV A.D. 10/5 T / N | 3x400+N              | 2x1,5      | 2x2   | 2x8,3   | A.D. M/T 2,2      | 27                    | 4,8                           | 4                    |
| 2 KV A.D. 10/6 T / N | 3x400+N              | 2x1,85     | 2x2,5 | 2x9,5   | A.D. M/T 2,2      | 27                    | 5,7                           | 4,5                  |
| 2 KV A.D. 10/8 T     | 3x400                | 2x2,2      | 2x3   | 2x8,8   | A.D. T/T 3,0      | 27                    | 7,6                           | 6                    |

| MODEL                | A   | B   | C   | E   | F   | H   | H1  | H2  | I   | DNA | DNM | PACKING DIMENSIONS |     |      | VOLUME<br>m³ | WEIGHT<br>kg |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------------|-----|------|--------------|--------------|
|                      |     |     |     |     |     |     |     |     |     |     |     | L/A                | L/B | H    |              |              |
| 2 KV A.D. 10/4 T / N | 500 | 570 | 500 | 220 | 190 | 775 | 125 | 755 | 535 | 2"  | 2"  | 1000               | 610 | 1280 | 0,8          | 87           |
| 2 KV A.D. 10/5 T / N | 500 | 570 | 500 | 252 | 190 | 807 | 125 | 787 | 535 | 2"  | 2"  | 1000               | 610 | 1280 | 0,8          | 90           |
| 2 KV A.D. 10/6 T / N | 500 | 570 | 500 | 284 | 190 | 839 | 125 | 819 | 535 | 2"  | 2"  | 1000               | 610 | 1280 | 0,8          | 93           |
| 2 KV A.D. 10/8 T     | 500 | 570 | 500 | 348 | 190 | 903 | 125 | 883 | 535 | 2"  | 2"  | 1000               | 610 | 1280 | 0,8          | 101          |

The sets are supplied in a sturdy cardboard packaging on wooden pallet and installation / maintenance manual.

### 3 KV AD 3 - DOMESTIC PRESSURE BOOSTER SETS

Pumped liquid temperature range: from 0 °C to +40 °C - Maximum ambient temperature: +40 °C - Max flow rate: 21.5 m³/h



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³.  
Curve tolerance according to ISO 9906. **Overall performance taking into account THREE pumps working at the same time.**  
The performance results of sets with smaller pumps are obtained through simple calibration of the Active Driver module.

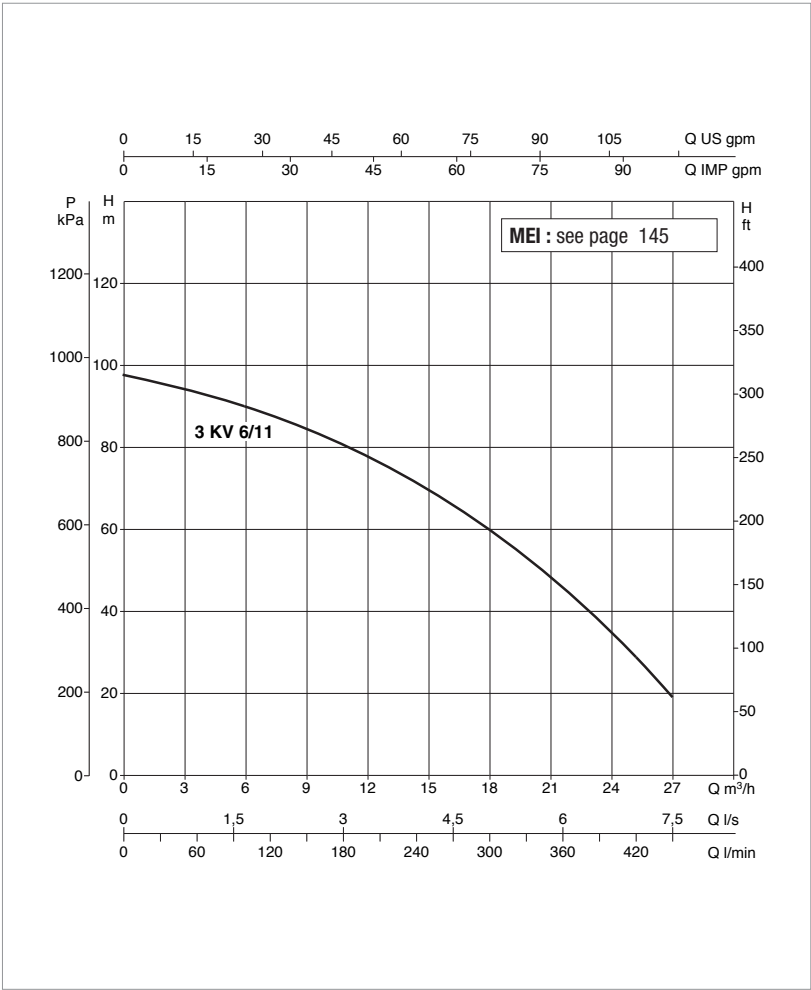
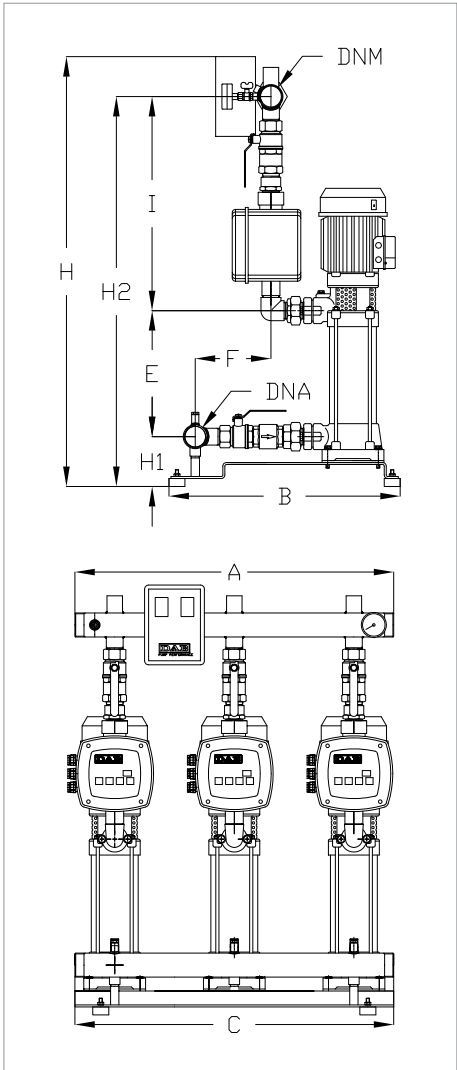
| MODEL                | POWER INPUT<br>50 Hz | P2 NOMINAL |     | In<br>A | INVERTER<br>MODEL | MAX FLOW RATE<br>m³/h | MAX<br>OBTAINABLE<br>PRESSURE | STANDARD<br>PRESSURE |
|----------------------|----------------------|------------|-----|---------|-------------------|-----------------------|-------------------------------|----------------------|
|                      |                      | kW         | HP  |         |                   |                       |                               |                      |
| 3 KV A.D. 3/12 T / N | 3x400+N              | 3x1,5      | 3x2 | 3x8,3   | A.D. M/T 2,2      | 21,5                  | 7,2                           | 6                    |

| MODEL                | A   | B   | C   | E   | F   | H    | H1  | H2   | I   | DNA | DNM | PACKING DIMENSIONS |     |      | VOLUME<br>m³ | WEIGHT<br>kg |
|----------------------|-----|-----|-----|-----|-----|------|-----|------|-----|-----|-----|--------------------|-----|------|--------------|--------------|
|                      |     |     |     |     |     |      |     |      |     |     |     | L/A                | L/B | H    |              |              |
| 3 KV A.D. 3/12 T / N | 800 | 570 | 800 | 476 | 205 | 1056 | 130 | 1026 | 550 | 80  | 80  | 1150               | 888 | 1300 | 1,35         | 172          |

The sets are supplied in a sturdy cardboard packaging on wooden pallet and installation / maintenance manual.

3 KV AD 6 - DOMESTIC PRESSURE BOOSTER SETS

Pumped liquid temperature range: from 0 °C to +40 °C - Maximum ambient temperature: +40 °C - Max flow rate: 25 m³/h



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906. **Overall performance taking into account THREE pumps working at the same time.** The performance results of sets with smaller pumps are obtained through simple calibration of the Active Driver module.

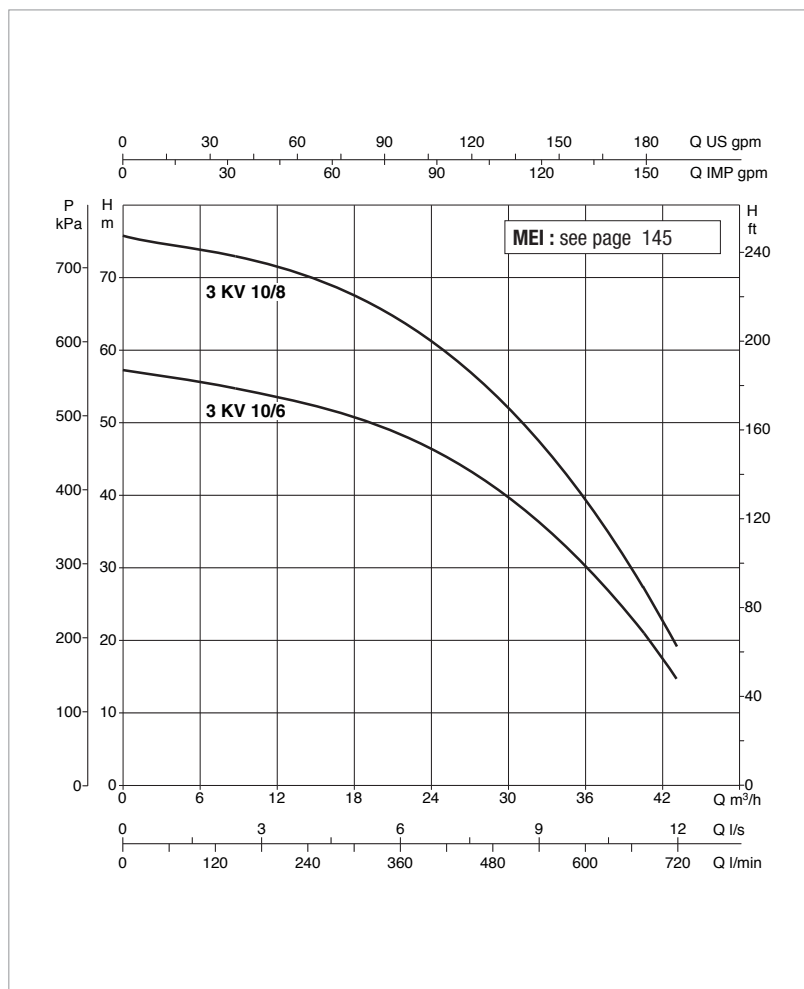
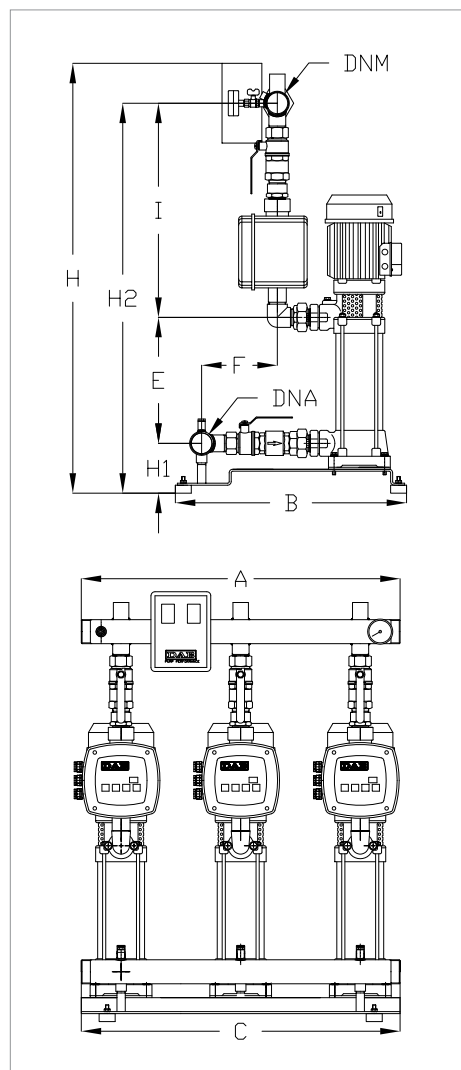
| MODEL                | POWER INPUT<br>50 Hz | P2 NOMINAL |       | In<br>A | INVERTER<br>MODEL | MAX FLOW RATE<br>m³/h | MAX<br>OBTAINABLE<br>PRESSURE | STANDARD<br>PRESSURE |
|----------------------|----------------------|------------|-------|---------|-------------------|-----------------------|-------------------------------|----------------------|
|                      |                      | kW         | HP    |         |                   |                       |                               |                      |
| 3 KV A.D. 6/11 T / N | 3x400+N              | 3x1,85     | 3x2,5 | 3x9,5   | A.D. M/T 2,2      | 25                    | 8,4                           | 7,5                  |

| MODEL                | A   | B   | C   | E   | F   | H    | H1  | H2  | I   | DNA | DNM | PACKING DIMENSIONS |     |      | VOLUME<br>m³ | WEIGHT<br>kg |
|----------------------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|--------------------|-----|------|--------------|--------------|
|                      |     |     |     |     |     |      |     |     |     |     |     | L/A                | L/B | H    |              |              |
| 3 KV A.D. 6/11 T / N | 800 | 570 | 800 | 444 | 205 | 1024 | 130 | 994 | 550 | 80  | 80  | 1150               | 888 | 1300 | 1,35         | 173          |

The sets are supplied in a sturdy cardboard packaging on wooden pallet and installation / maintenance manual.

### 3 KV AD 10 - DOMESTIC PRESSURE BOOSTER SETS

Pumped liquid temperature range: from 0 °C to +40 °C - Maximum ambient temperature: +40 °C - Max flow rate: 41 m³/h



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906. **Overall performance taking into account THREE pumps working at the same time.** The performance results of sets with smaller pumps are obtained through simple calibration of the Active Driver module.

| MODEL                | POWER INPUT<br>50 Hz | P2 NOMINAL |       | In<br>A | INVERTER<br>MODEL | MAX FLOW RATE<br>m³/h | MAX<br>OBTAINABLE<br>PRESSURE | STANDARD<br>PRESSURE |
|----------------------|----------------------|------------|-------|---------|-------------------|-----------------------|-------------------------------|----------------------|
|                      |                      | kW         | HP    |         |                   |                       |                               |                      |
| 3 KV A.D. 10/6 T / N | 3x400+N              | 3x1,85     | 3x2,5 | 3x9,5   | A.D. M/T 2,2      | 41                    | 5,7                           | 4,5                  |
| 3KV A.D. 10/8 T      | 3x400                | 3x2,2      | 3x3   | 3x8,8   | A.D. T/T 3,0      | 41                    | 7,6                           | 6                    |

| MODEL                | A   | B   | C   | E   | F   | H   | H1  | H2  | I   | DNA | DNM | PACKING DIMENSIONS |     |      | VOLUME<br>m³ | WEIGHT<br>kg |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------------|-----|------|--------------|--------------|
|                      |     |     |     |     |     |     |     |     |     |     |     | L/A                | L/B | H    |              |              |
| 3 KV A.D. 10/6 T / N | 800 | 570 | 800 | 284 | 205 | 864 | 130 | 834 | 550 | 80  | 80  | 1150               | 888 | 1300 | 1,35         | 178          |
| 3KV A.D. 10/8 T      | 800 | 570 | 800 | 348 | 205 | 928 | 130 | 898 | 550 | 80  | 80  | 1150               | 888 | 1300 | 1,35         | 194          |

The sets are supplied in a sturdy cardboard packaging on wooden pallet and installation / maintenance manual.